


SEQUENCE LISTING



<110> Hawiger, Daniel
Steinman, Ralph M.
Nussenzweig, Michel C.

<120> Enhanced Antigen Delivery and Modulation
of the Immune Response Therefrom

<130> RUJ-001CNCPRCE2

<140> 09/925,284

<141> 2001-08-09

<150> 09/586,704

<151> 2000-06-05

<150> 08/381,528

<151> 1995-01-31

<160> 10

<170> FastSEQ for Windows Version 4.0

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<212> DNA

<213> Artificial Sequence

<220>

<223> synthetic

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<213> Artificial Sequence

RUJ-001CNCPRCE2

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ggccatgtcg 70

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ggccgcctat catgtcctac cgtcataata cctgctgtta atctggagaa taccatagtc 60
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<211> 30

<212> PRT

<213> Homo sapiens

<220>

<223> carboxy terminal DEC-205

<400> 7

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Gly	Val	Asn	Glu	Asp	Glu	Ile	Met	Leu	Pro	Ser	Phe	His	Asp		
		20					25					30			

<210> 8

<211> 25

<212> PRT

<213> mus musculus

<220>

<223> amino terminal Dec-205

<400> 8

Ser	Glu	Ser	Ser	Gly	Asn	Asp	Pro	Phe	Thr	Ile	Val	His	Glu	Asn	Thr
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Gly	Lys	Cys	Ile	Gln	Pro	Leu	Phe	Asp							
		20					25								

<210> 9

RUJ-001CNCPRCE2

<211> 19

<212> PRT

<213> mus musculus

<220>

<223> amino terminal DEC-205

<400> 9

Ser	Glu	Ser	Ser	Gly	Asn	Asp	Pro	Phe	Thr	Ile	Val	His	Glu	Asn	Thr
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Gly	Lys	Cys													

<210> 10

<211> 1723

<212> PRT

<213> mus musculus

<220>

<223> predicted DEC-205

<400> 10

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Leu	Leu	Leu	Arg	Ser	Phe	Gly	Leu	Val	Glu	Pro	Ser	Glu	Ser	Ser	Gly
			20					25					30		
Asn	Asp	Pro	Phe	Thr	Ile	Val	His	Glu	Asn	Thr	Gly	Lys	Cys	Ile	Gln
		35					40					45			
Pro	Leu	Ser	Asp	Trp	Val	Val	Ala	Gln	Asp	Cys	Ser	Gly	Thr	Asn	Asn
		50				55					60				
Met	Leu	Trp	Lys	Trp	Val	Ser	Gln	His	Arg	Leu	Phe	His	Leu	Glu	Ser
65				70					75					80	
Gln	Lys	Cys	Leu	Gly	Leu	Asp	Ile	Thr	Lys	Ala	Thr	Asp	Asn	Leu	Arg
			85						90					95	
Met	Phe	Ser	Cys	Asp	Ser	Thr	Val	Met	Leu	Trp	Trp	Lys	Cys	Glu	His
			100					105					110		
His	Ser	Leu	Tyr	Thr	Ala	Ala	Gln	Tyr	Arg	Leu	Ala	Leu	Lys	Asp	Gly
		115					120					125			
Tyr	Ala	Val	Ala	Asn	Thr	Asn	Thr	Ser	Asp	Val	Trp	Lys	Lys	Gly	Gly
	130					135					140				
Ser	Glu	Glu	Asn	Leu	Cys	Ala	Gln	Pro	Tyr	His	Glu	Ile	Tyr	Thr	Arg
145					150					155					160
Asp	Gly	Asn	Ser	Tyr	Gly	Arg	Pro	Cys	Glu	Phe	Pro	Phe	Leu	Ile	Gly
				165					170					175	
Glu	Thr	Trp	Tyr	His	Asp	Cys	Ile	His	Asp	Glu	Asp	His	Ser	Gly	Pro
			180					185					190		
Trp	Cys	Ala	Thr	Thr	Leu	Ser	Tyr	Glu	Tyr	Asp	Gln	Lys	Trp	Gly	Ile
		195					200					205			
Cys	Leu	Leu	Pro	Glu	Ser	Gly	Cys	Glu	Gly	Asn	Trp	Glu	Lys	Asn	Glu
		210				215					220				
Gln	Ile	Gly	Ser	Cys	Tyr	Gln	Phe	Asn	Asn	Gln	Glu	Ile	Leu	Ser	Trp
225					230					235					240
Lys	Glu	Ala	Tyr	Val	Ser	Cys	Gln	Asn	Gln	Gly	Ala	Asp	Leu	Leu	Ser
				245						250				255	
Ile	His	Ser	Ala	Ala	Glu	Leu	Ala	Tyr	Ile	Thr	Gly	Lys	Glu	Asp	Ile
			260					265					270		
Ala	Arg	Leu	Val	Trp	Leu	Gly	Leu	Asn	Gln	Leu	Tyr	Ser	Ala	Arg	Gly
		275					280					285			
Trp	Glu	Trp	Ser	Asp	Phe	Arg	Pro	Leu	Lys	Phe	Leu	Asn	Trp	Asp	Pro
		290				295					300				
Gly	Thr	Pro	Val	Ala	Pro	Val	Ile	Gly	Gly	Ser	Ser	Cys	Ala	Arg	Met
305					310					315					320
Asp	Thr	Glu	Ser	Gly	Leu	Trp	Gln	Ser	Val	Ser	Cys	Glu	Ser	Gln	Gln

				325						330						335	
Pro	Tyr	Val	Cys	Lys	Lys	Pro	Leu	Asn	Asn	Thr	Leu	Glu	Leu	Pro	Asp		
			340					345					350				
Val	Trp	Thr	Tyr	Thr	Asp	Thr	His	Cys	His	Val	Gly	Trp	Leu	Pro	Asn		
		355					360					365					
Asn	Gly	Phe	Cys	Tyr	Leu	Leu	Ala	Asn	Glu	Ser	Ser	Ser	Trp	Asp	Ala		
		370				375					380						
Ala	His	Leu	Lys	Cys	Lys	Ala	Phe	Gly	Ala	Asp	Leu	Ile	Ser	Met	His		
385					390					395					400		
Ser	Leu	Ala	Asp	Val	Glu	Val	Val	Val	Thr	Lys	Leu	His	Asn	Gly	Asp		
				405					410					415			
Val	Lys	Lys	Glu	Ile	Trp	Thr	Gly	Leu	Lys	Asn	Thr	Asn	Ser	Pro	Ala		
			420					425					430				
Leu	Phe	Gln	Trp	Ser	Asp	Gly	Thr	Glu	Val	Thr	Leu	Thr	Tyr	Trp	Asn		
		435				440						445					
Glu	Asn	Glu	Pro	Ser	Val	Pro	Phe	Asn	Lys	Thr	Pro	Asn	Cys	Val	Ser		
		450				455					460						
Tyr	Leu	Gly	Lys	Leu	Gly	Gln	Trp	Lys	Val	Gln	Ser	Cys	Glu	Lys	Lys		
465					470					475					480		
Leu	Arg	Tyr	Val	Cys	Lys	Lys	Lys	Gly	Glu	Ile	Thr	Lys	Asp	Ala	Glu		
				485					490					495			
Ser	Asp	Lys	Leu	Cys	Pro	Pro	Asp	Glu	Gly	Trp	Lys	Arg	His	Gly	Glu		
			500					505					510				
Thr	Cys	Tyr	Lys	Ile	Tyr	Glu	Lys	Glu	Ala	Pro	Phe	Gly	Thr	Asn	Cys		
		515				520						525					
Asn	Leu	Thr	Ile	Thr	Ser	Arg	Phe	Glu	Gln	Glu	Phe	Leu	Asn	Tyr	Met		
		530				535					540						
Met	Lys	Asn	Tyr	Asp	Lys	Ser	Leu	Arg	Lys	Tyr	Phe	Trp	Thr	Gly	Leu		
545					550					555					560		
Arg	Asp	Pro	Asp	Ser	Arg	Gly	Glu	Tyr	Ser	Trp	Ala	Val	Ala	Gln	Gly		
				565					570					575			
Val	Lys	Gln	Ala	Val	Thr	Phe	Ser	Asn	Trp	Asn	Phe	Leu	Glu	Pro	Ala		
			580					585					590				
Ser	Pro	Gly	Gly	Cys	Val	Ala	Met	Ser	Thr	Gly	Lys	Thr	Leu	Gly	Lys		
		595					600					605					
Trp	Glu	Val	Lys	Asn	Cys	Arg	Ser	Phe	Arg	Ala	Leu	Ser	Ile	Cys	Lys		
		610				615					620						
Lys	Val	Ser	Glu	Pro	Gln	Glu	Pro	Glu	Glu	Ala	Ala	Pro	Lys	Pro	Asp		
625					630					635					640		
Asp	Pro	Cys	Pro	Glu	Gly	Trp	His	Thr	Phe	Pro	Ser	Ser	Leu	Ser	Cys		
				645					650					655			
Tyr	Lys	Val	Phe	His	Ile	Glu	Arg	Ile	Val	Arg	Lys	Arg	Asn	Trp	Glu		
			660					665									

Tyr	Glu	Glu	Ala	Val	Leu	Tyr	Cys	Ala	Ser	Asn	His	Ser	Phe	Leu	Ala	835	840	845
Thr	Ile	Thr	Ser	Phe	Thr	Gly	Leu	Lys	Ala	Ile	Lys	Asn	Lys	Leu	Ala	850	855	860
Asn	Ile	Ser	Gly	Glu	Glu	Gln	Lys	Trp	Trp	Val	Lys	Thr	Ser	Glu	Asn	865	870	875
Pro	Ile	Asp	Arg	Tyr	Phe	Leu	Gly	Ser	Arg	Arg	Arg	Leu	Trp	His	His	885	890	895
Phe	Pro	Met	Thr	Phe	Gly	Asp	Glu	Cys	Leu	His	Met	Ser	Ala	Lys	Thr	900	905	910
Trp	Leu	Val	Asp	Leu	Ser	Lys	Arg	Ala	Asp	Cys	Asn	Ala	Lys	Leu	Pro	915	920	925
Phe	Ile	Cys	Glu	Arg	Tyr	Asn	Val	Ser	Ser	Leu	Glu	Lys	Tyr	Ser	Pro	930	935	940
Asp	Pro	Ala	Ala	Lys	Val	Gln	Cys	Thr	Glu	Lys	Trp	Ile	Pro	Phe	Gln	945	950	955
Asn	Lys	Cys	Phe	Leu	Lys	Val	Asn	Ser	Gly	Pro	Val	Thr	Phe	Ser	Gln	965	970	975
Ala	Ser	Gly	Ile	Cys	His	Ser	Tyr	Gly	Gly	Thr	Leu	Pro	Ser	Val	Leu	980	985	990
Ser	Arg	Gly	Glu	Gln	Asp	Phe	Ile	Ile	Ser	Leu	Leu	Pro	Glu	Met	Glu	995	1000	1005
Ala	Ser	Leu	Trp	Ile	Gly	Leu	Arg	Trp	Thr	Ala	Tyr	Glu	Arg	Ile	Asn	1010	1015	1020
Arg	Trp	Thr	Asp	Asn	Arg	Glu	Leu	Thr	Tyr	Ser	Asn	Phe	His	Pro	Leu	1025	1030	1035
Leu	Val	Gly	Arg	Arg	Leu	Ser	Ile	Pro	Thr	Asn	Phe	Phe	Asp	Asp	Glu	1045	1050	1055
Ser	His	Phe	His	Cys	Ala	Leu	Ile	Leu	Asn	Leu	Lys	Lys	Ser	Pro	Leu	1060	1065	1070
Thr	Gly	Thr	Trp	Asn	Phe	Thr	Ser	Cys	Ser	Glu	Arg	His	Ser	Leu	Ser	1075	1080	1085
Leu	Cys	Gln	Lys	Tyr	Ser	Glu	Thr	Glu	Asp	Gly	Gln	Pro	Trp	Glu	Asn	1090	1095	1100
Thr	Ser	Lys	Thr	Val	Lys	Tyr	Leu	Asn	Asn	Leu	Tyr	Lys	Ile	Ile	Ser	1105	1110	1115
Lys	Pro	Leu	Thr	Trp	His	Gly	Ala	Leu	Lys	Glu	Cys	Met	Lys	Glu	Lys	1125	1130	1135
Met	Arg	Leu	Val	Ser	Ile	Thr	Asp	Pro	Tyr	Gln	Gln	Ala	Phe	Leu	Ala	1140	1145	1150
Val	Gln	Ala	Thr	Leu	Arg	Asn	Ser	Ser	Phe	Trp	Ile	Gly	Leu	Ser	Ser	1155	1160	1165
Gln	Asp	Asp	Glu	Leu	Asn	Phe	Gly	Trp	Ser	Asp	Gly	Lys	Arg	Leu	Gln	1170	1175	1180
Phe	Ser	Asn	Trp	Ala	Gly	Ser	Asn	Glu	Gln	Leu	Asp	Asp	Cys	Val	Ile	1185	1190	1195
Leu	Asp	Thr	Asp	Gly	Phe	Trp	Lys	Thr	Ala	Asp	Cys	Asp	Asp	Asn	Gln	1205	1210	1215
Pro	Gly	Ala	Ile	Cys	Tyr	Tyr	Pro	Gly	Asn	Glu	Thr	Glu	Glu	Glu	Val	1220	1225	1230
Arg	Ala	Leu	Asp	Thr	Ala	Lys	Cys	Pro	Ser	Pro	Val	Gln	Ser	Thr	Pro	1235	1240	1245
Trp	Ile	Pro	Phe	Gln	Asn	Ser	Cys	Tyr	Asn	Phe	Met	Ile	Thr	Asn	Asn	1250	1255	1260
Arg	His	Lys	Thr	Val	Thr	Pro	Glu	Glu	Val	Gln	Ser	Thr	Cys	Glu	Lys	1265	1270	1275
Leu	His	Pro	Lys	Ala	His	Ser	Leu	Ser	Ile	Arg	Asn	Glu	Glu	Glu	Asn	1285	1290	1295
Thr	Phe	Val	Val	Glu	Gln	Leu	Leu	Tyr	Phe	Asn	Tyr	Ile	Ala	Ser	Trp	1300	1305	1310
Val	Met	Leu	Gly	Ile	Thr	Tyr	Glu	Asn	Asn	Ser	Leu	Met	Trp	Phe	Asp	1315	1320	1325
Lys	Thr	Ala	Leu	Ser	Tyr	Thr	His	Trp	Arg	Thr	Gly	Arg	Pro	Thr	Val			

1330		1335		1340
Lys Asn Gly Lys Phe Leu Ala Gly Leu Ser Thr Asp Gly Phe Trp Asp				
1345	1350		1355	1360
Ile Gln Ser Phe Asn Val Ile Glu Glu Thr Leu His Phe Tyr Gln His				
	1365		1370	1375
Ser Ile Ser Ala Cys Lys Ile Glu Met Val Asp Tyr Glu Asp Lys His				
	1380		1385	1390
Asn Gly Thr Leu Pro Gln Phe Ile Pro Tyr Lys Asp Gly Val Tyr Ser				
	1395		1400	1405
Val Ile Gln Lys Lys Val Thr Trp Tyr Glu Ala Leu Asn Ala Cys Ser				
	1410		1415	1420
Gln Ser Gly Gly Glu Leu Ala Ser Val His Asn Pro Asn Gly Lys Leu				
1425	1430		1435	1440
Phe Leu Glu Asp Ile Val Asn Arg Asp Gly Phe Pro Leu Trp Val Gly				
	1445		1450	1455
Leu Ser Ser His Asp Gly Ser Glu Ser Ser Phe Glu Trp Ser Asp Gly				
	1460		1465	1470
Arg Ala Phe Asp Tyr Val Pro Trp Gln Ser Leu Gln Ser Pro Gly Asp				
	1475		1480	1485
Cys Val Val Leu Tyr Pro Lys Gly Ile Trp Arg Arg Glu Lys Cys Leu				
	1490		1495	1500
Ser Val Lys Asp Gly Ala Ile Cys Tyr Lys Pro Thr Lys Asp Lys Lys				
1505	1510		1515	1520
Leu Ile Phe His Val Lys Ser Ser Lys Cys Pro Val Ala Lys Arg Asp				
	1525		1530	1535
Gly Pro Gln Trp Val Gln Tyr Gly Gly His Cys Tyr Ala Ser Asp Gln				
	1540		1545	1550
Val Leu His Ser Phe Ser Glu Ala Lys Gln Val Cys Gln Glu Leu Asp				
	1555		1560	1565
His Ser Ala Thr Val Val Thr Ile Ala Asp Glu Asn Glu Asn Lys Phe				
	1570		1575	1580
Val Ser Arg Leu Met Arg Glu Asn Tyr Asn Ile Thr Met Arg Val Trp				
1585	1590		1595	1600
Leu Gly Leu Ser Gln His Ser Leu Asp Gln Ser Trp Ser Trp Leu Asp				
	1605		1610	1615
Gly Leu Asp Val Thr Phe Val Lys Trp Glu Asn Lys Thr Lys Asp Gly				
	1620		1625	1630
Asp Gly Lys Cys Ser Ile Leu Ile Ala Ser Asn Glu Thr Trp Arg Lys				
	1635		1640	1645
Val His Cys Ser Arg Gly Tyr Ala Arg Ala Val Cys Lys Ile Pro Leu				
	1650		1655	1660
Ser Pro Asp Tyr Thr Gly Ile Ala Ile Leu Phe Ala Val Leu Cys Leu				
1665	1670		1675	1680
Leu Gly Leu Ile Ser Leu Ala Ile Trp Phe Leu Leu Gln Arg Ser His				
	1685		1690	1695
Ile Arg Trp Thr Gly Phe Ser Ser Val Arg Tyr Glu His Gly Thr Asn				
	1700		1705	1710
Glu Asp Glu Val Met Leu Pro Ser Phe His Asp				
	1715		1720	